107. A method for stimulating a Neural Cell Adhesion Molecule (N-CAM) production in a neuronal cell, comprising contacting said neuronal cell with a morphogen selected from the group consisting of an OP-1 polypeptide, a CBMP2A polypeptide, a CBMP2B polypeptide, a BMP-5 polypeptide, and a BMP-6 polypeptide.

108. The method of claim 107, wherein said OP-1 polypeptide comprises the amino acid sequence of residues 38-139 of SEQ ID NO:5.

109. The method of claim 107, wherein said OP-1 polypeptide comprises the amino acid sequence of residues 38-139 of SEQ ID NO:6.

110. The method of claim 107, wherein said OP-1 polypeptide comprises the amino acid sequence of SEQ ID NO:5.

111. The method of claim 107, wherein said OP-1 polypeptide comprises the amino acid sequence of SEQ ID NO:6.

112. A method for decreasing neuronal cell death associated with a neuropathy, comprising contacting said neuronal cell with a morphogen which stimulates N-CAM production, said morphogen being selected from the group consisting of OP-1 polypeptide, a CBMP2A polypeptide, a CBMP2B polypeptide, a BMP-5 polypeptide, and a BMP-6 polypeptide.

113. The method of claim 112, wherein said OP-1 polypeptide comprises the amino acid sequence of residues 38-139 of SEQ ID NO:5.

114. The method of claim 112, wherein said OP-1 polypeptide comprises the amino acid sequence of residues 38-139 of SEQ ID NO:6.

115. The method of claim 112, wherein said OP-1 polypeptide comprises the amino acid sequence of SEQ ID NO:5.

116. The method of claim 112, wherein said OP-1 polypeptide comprises the amino acid sequence of SEQ ID NO:6.

117. The method of claim 112, wherein said neuropathy is amyotrophic lateral sclerosis.

118. The method of claim 112, wherein said neuropathy is selected from the group consisting of Alzheimer's Disease, Huntington's chorea, and multiple sclerosis.

119. A method for decreasing neuronal cell death associated with a chemical or physical injury, comprising contacting said neuronal cell with a morphogen which stimulates N-CAM production, said morphogen being selected from the group consisting of OP-1 polypeptide, a CBMP2A polypeptide, a CBMP2B polypeptide, a BMP-5 polypeptide, and a BMP-6 polypeptide.

120. The method of claim 119, wherein said neuronal cell is contacted with said morphogen prior to said injury.

121. The method of claim 119, wherein said neuronal cell is contacted with said morphogen after said injury.

122. The method of claim 119, wherein said OP-1 polypeptide comprises the amino acid sequence of residues 38-139 of SEQ ID NO:5.

123. The method of claim 119, wherein said OP-1 polypeptide comprises the amino acid sequence of residues 38-139 of SEQ ID NO:6.

124. The method of claim 119, wherein said OP-1 polypeptide comprises the amino acid sequence of SEQ ID NO:5.

125. The method of claim 119, wherein said OP-1 polypeptide comprises the amino acid sequence of SEQ ID NO:6.